

CLEAN VERSION OF AMENDED CLAIMS

1-24. (Cancelled)

25. (Currently Amended) A printed circuit board design instruction support device that supports printed circuit board design between a circuit design and a printed circuit board design, said device comprising:

25A means for reading a circuit diagram designed by the circuit design;
 means for storing design instruction information regarding the printed circuit board design and keywords, which are associated with said design instruction information and set corresponding to the type of items included in said circuit diagram; and

25B means for extracting keywords corresponding to the type of items included in the read circuit diagram and automatically displaying design instruction information associated with the extracted keywords, when the circuit diagram is read by said reading means, wherein

25C said design instruction is made up of design implementation information showing information whether or not a circuit board designed was performed according to a design instruction and printed circuit board design instruction support implementation information to which check result information of printed circuit board design instruction support is input, and

25D said storing means is database in which design instruction and said keywords are listed in a divided manner.

26. (Currently Amended) The printed circuit board design instruction support device according to Claim 25, wherein

26A said displaying means displays keywords corresponding to the type of items included in the read circuit diagram when the circuit diagram is read by said reading means, and

26B said displaying means simultaneously displays said design instruction, said keywords, said items, said design implementation information and said printed circuit board design instruction support implementation information in a list.

27. (Canceled)

28. (Currently Amended) The printed circuit board design instruction support device according to Claim 25, said device comprising:

28A means for extracting damping resistances including the attribute of series connection
from the circuit diagram read by said reading means, judging whether or not said resistances
28B are damping resistances by discriminating whether or not items connected to the pins of the
extracted resistances are ICs, and automatically extracting damping resistances that are
28C correctly arranged based on a design rule in arranging and target ICs of the resistances, from
the circuit diagram read by said reading means.

29. (Currently Amended) The printed circuit board design instruction support device according to Claim 25, said device comprising:

29A means for extracting capacitors, which are connected to a power source and ground,
from the circuit diagram read by said reading means, judging whether or not said capacitors are
bypass capacitors by discriminating whether or not the extracted capacitors are capacitors to
which an IC is connected to the power source side, and automatically extracting bypass
capacitors and target ICs of the capacitors from the circuit diagram read by said reading means.

30. (Previously Presented) The printed circuit board design instruction support device according to Claim 29, wherein

said extraction means, when the extracted capacitors are connected to a plurality of ICs, extracts an IC having the shortest connecting distance out of the ICs.

31. (Previously Presented) The printed circuit board design instruction support device according to Claim 29, wherein

said extraction means extracts bypass capacitors, the target ICs of the capacitors and the information of wiring connecting the both parts from the circuit diagram read by said reading means.

32. (Currently Amended) The printed circuit board design instruction support device according to Claim 26, said device comprising:

32A

means for extracting items included in the circuit diagram read by said reading means;
and
means for associating the items that were extracted by said extraction means with said design instruction information via said keywords, wherein

32B

said display means automatically displays correlation between the items associated by said association means, on the circuit diagram.

33. (Currently Amended) The printed circuit board design instruction support device according to Claim 32, wherein

said reading means reads a printed circuit board diagram designed by the printed circuit board design, said device comprising:

33A

means for selecting items or keywords displayed by said display means; and
means for highlighting regions of selected items on the printed circuit board diagram read by said reading means, which correspond to items selected by said selection means, by displaying in an enlarged manner when the items are selected by said selection means, and highlighting only items associated with the keywords on said printed circuit board diagram read by said reading means, which corresponds to keywords selected by said selection means, when the keywords are selected by said selection means, in performing cross-probe.

34. (Currently Amended) The printed circuit board design instruction support device according to Claim 32, said device comprising:

34A

means for selecting items or keywords displayed by said display means; and
means for highlighting regions of selected items on said circuit diagram read by said reading means, which correspond to items selected by said selection means, by displaying in an enlarged manner when the items are selected by said selection means, and highlighting items associated with keywords on said circuit diagram read by said reading means, which

correspond to keywords selected by said selection means, when the keywords are selected by said selection means, in performing cross-probe.

35. (Previously Presented) The printed circuit board design instruction support device according to any one of Claims 33 and 34, said device comprising:

35A means for executing macro that performs control such that said display means displays the entire circuit diagram read by said reading means before items are highlighted by said highlight means, macro that performs control such that said display means displays highlighted items in an enlarged manner after the items were highlighted by said highlight means, or macro that performs control such that said display means displays the entire circuit diagram read by said reading means before items are highlighted by said highlight means and said display means displays highlighted items in an enlarged manner after the items were highlighted by said highlight means.

36. (Currently Amended) The printed circuit board design instruction support device according to any one of Claims 25, 26, 28, 29, 30, 31, 32, 33 and 34, said device comprising:

36A means for managing whether or not a printed circuit board design was performed according to said design instruction information, by accepting the input of a result in which said design instruction information was reflected on the printed circuit board design and accepting an agreement to said result, wherein

36B said result is identifiably displayed on a display screen while the color and/or brightness of said items are changed, and
the device is capable of simultaneously displaying areas to be checked on both of a circuit diagram and a printed circuit board layout diagram for each circuit part.

37-41. (Canceled)

42. (Previously Presented) A program for allowing a computer to function as the printed circuit board design instruction support device according to any one of Claims 25, 26, 28, 29, 30, 31, 32, 33 and 34.

43. (Previously Presented) A program for allowing a computer to function as the printed circuit board design instruction support device according to Claim 35.

44. (Currently Amended) A printed circuit board design instruction support method in which printed circuit board design is supported between a circuit design and a printed circuit board design, said method comprising the steps of:

using a computer to execute the following steps;

44A

reading a circuit diagram designed by the circuit design;
storing design instruction information regarding the printed circuit board design and keywords, which are associated with said design instruction information and set corresponding to the type of items included in said circuit diagram; and

44B

extracting keywords corresponding to the type of items included in the read circuit design and displaying design instruction information associated with the extracted keywords, when the circuit design is read by said reading step, wherein

44C

said design instruction information is made up of design implementation information showing information whether or not a circuit board designed was performed according to a design instruction and printed circuit board design instruction support implementation information to which check result information of printed circuit board design support implementation is input, and

44D

said storing step is listing design instruction and said keywords in a divided manner.

45. (Previously Presented) A program for allowing a computer to function as the printed circuit board design instruction support device according to Claim 44.

46. (Previously Presented) A computer-readable recording medium recording the program according to Claim 42.